

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. An identifier indicating the status of each claim is provided.

Listing of Claims

1-28. (Cancelled)

29. (New) A flat, interlockable tile of substantially resilient material comprising:

a central portion having top and bottom surfaces and elongated support edges of substantially rectangular cross-sectional shape having a longitudinal inner edge joined to said central portion;

a free outer edge interlock structure on each of said support edges for providing interlocking connections with other substantially identical tiles;

a series of first and second sets of adjacent male interlocks formed with respective walls that project perpendicularly from respective ones of said support edges in longitudinally spaced-apart relationships;

wherein the second set of male interlocks has an elongated wall with laterally spaced-apart inner and outer sidewalls projecting from their corresponding support edge and extending longitudinally and transversely therealong to provide a succession of second wall traversals of its corresponding support edge,

wherein a section of the outer sidewall of said wall of said second male interlock extends opposite a first male interlock of its corresponding interlock sets,

whereby the outer sidewall section forms an open ended channel with said first male interlock of a size and shape for mating with inverted ones of other second male interlocks, and

wherein the successive traversals of the support edge by the inner sidewall of said second male interlock provide an interior wall portion for an open-ended cavity of a size and shape to mate with inverted ones of other first male interlocks.

30. (New) The tile as claimed in claim 29, wherein the top tile surface includes a layer of decorative and/or wear resistant material.

31. (New) The tile as claimed in claim 30, wherein the tile is of quadrilateral shape with two pairs of support edges, and wherein said layer is a decorative layer covering the top surface of said central portion and one of said pairs of support edges.

32. (New) The tile as claimed in claim 29, wherein said channel has a pair of transversely diverging channel sections joined to form a continuous channel of substantially U cross-sectional shape around part of said first male interlock.

33. (New) The tile as claimed in claim 32, wherein said outer sidewall of each of said second male interlocks is curved whereby its traversal of its respective support edge has an alternating configuration in plan view.

34. (New) The tile as claimed in claim 33, wherein the wall of each of said second male interlocks of said first and second sets of interlocks comprises:

a projecting rib of substantially rectangular cross-section, and
wherein said inner and outer sidewalls thereof are formed on the rib in substantially parallel relationship to one another.

35. (New) The tile as claimed in claim 34, wherein each male interlock of a first set comprises a multi-sided lug having a planar free end surface substantially parallel to the plane of said central portion of the tile.

36. (New) The tile as claimed in claim 35, wherein said lug has three sides joined together to form substantially triangular configuration in plan view.

37. (New) The tile as claimed in claim 36, wherein the apices of the triangular configuration of said lug are rounded to provide said lug with smooth surfaces for facilitating mating with an inverted one of said female cavities of another substantially identical tile.

38. (New) The tile as claimed in claim 37, wherein each of said second male interlocks includes a second rib extending adjacent and substantially parallel to said inner edge of its respective support edge for completing the sidewall enclosure of said cavity.

39. (New) The tile as claim in claim 38, wherein each of said plurality of lugs is spaced laterally inwardly from its supporting edge by an amount substantially equal to the width of an adjacent channel.

40. (New) The tile as claimed in claim 39, wherein a pair of lugs adjacent different tile corners of one pair of said support edges are inverted relative to one another and mounted on their support edge in wider spaced-apart juxtaposed relationship than the lugs mounted therebetween to facilitate initial interlockings between adjacent tiles.

41. (New) The tile as claimed in claim 40, wherein said pair of lugs at the opposite corners of each of said support edges are spaced by a channel section of greater width than the width of said channel between intermediately disposed lugs of the series therebetween, whereby initial interlocking between mating tiles is facilitated by the lug pair with greater longitudinal spacing therebetween.

42. (New) The tile as claimed in claim 41, wherein there are a pair of said cavities located at opposite ends of another pair of said support edges, and wherein each cavity of said pair is inverted relative to one another and separated by a rib having a width substantially equal to said greater width of said channel between the lug pairs.

43. (New) The tile as claimed in claim 33, wherein the alternating course of said channel is substantially sinusoidal.

44. (New) An adhesive-free interlockable tile of substantially resilient composition, comprising:

a plurality of elongated interlock support edges on the tile with each having a longitudinal axis and substantially parallel inner and outer edge portions with the outer edge portions defining the periphery of the tile;

first and second walled structures projecting from one of said interlocks support edges for providing adhesive-free interlocks with other tiles;

the second walled structure being elongated with laterally spaced-apart inner and outer sidewalls that successively traverse their support edge between their respective inner and outer edges portions thereof;

the outer sidewall of said second walled structure extending opposite a first walled structure and being laterally spaced therefrom to form an open-ended channel therebetween of size and shape to mate with an inverted one of another second walled structure, and the traversals of said support edge by the inner sidewall forming an open-ended cavity interior wall portion of size and shape to mate with an inverted one of another first walled structure,

whereby non-adhesive connections may be made with other tiles having inverted first and second walled interlock structures thereon.

45. (New) The tile as claimed in claim 44, wherein certain ones of said first walled structures have three mutually adjoining sides, two of said three sides disposed opposite one another and joining opposite respective ends of a third side.

46. (New) The tile as claimed in claim 45, wherein the third sides of certain ones of the first walled structures extend substantially parallel to the longitudinal support edge axis, and wherein the two structure sides thereof join together inwardly of their outer adjacent edge a distance substantially equal to the width of said channel.

47. (New) The tile as claimed in claim 44, wherein said plurality of interlock support edges intersect to form opposite corners of the tile, and

wherein a pair of said first walled interlock structures are disposed adjacent each tile corner and are inverted relative to each other.

48. (New) The tile as claimed in claim 47, wherein a portion of said channel is interposed between the corner pair of said first walled structures and has a width greater than that of other portions of the channel.

49. (New) The tile as claimed in claim 48, wherein said channel follows a substantially sinusoidal course along its corresponding support edge.

50. (New) The tile as claimed in claim 49, wherein the sidewalls of said second walled structures have a width substantially equal to that of said channel formed thereby.

51. (New) The tile as claimed in claim 50, wherein each of said first walled structures has a generally triangular transverse cross-sectional shape with rounded apices.

52. (New) The tile as claimed in claim 51, wherein the sidewalls of said second walled structures are continuous and traverse the width of a corresponding edge substantially from the inner to the outer edge portions thereof.

53. (New) The tile claimed in claim 52, wherein the respective inner and outer sidewalls of each of said second walled structures converge adjacent an outer edge portion of a corresponding support edge and are joined by a basewall extending substantially parallel to the inner edge portion thereof,

whereby the three adjoining walls form one of the cavities therebetween with a generally triangular shape in plan view.

54. (New) An edge interlock system for a substantially resilient tile, comprising:

a first plurality of male interlock elements disposed at substantially equal first spaced-apart distances from one another along a midsection of one tile edge and projecting perpendicularly therefrom;

a second plurality of multi-sided male interlock elements of substantially identical size and shape and disposed at a second spaced-apart distance from one another adjacent one end of said one tile edge and projecting perpendicularly therefrom,

the second distance being greater than at least one of the first distances, and

the second male interlock elements being inverted with respect to each other to provide a greater interlocking tolerance to the mating with interlock elements of other tiles.

55. (New) The system as claimed in claim 54, wherein a first open-sided channel section traverses along said edge between adjacent ones of said first interlock elements, and wherein a second open-ended channel section traverses between said second interlock elements, the second channel section having a greater width than said first channel section and extending from said mid-section.

56. (New) The system as claimed in claim 55, wherein said second interlock elements are disposed adjacent opposite respective ends of said tile edge.